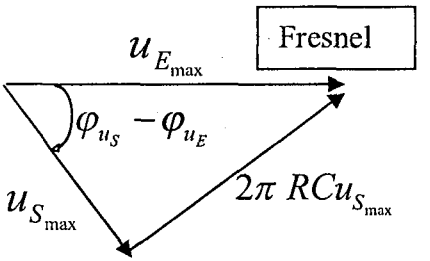
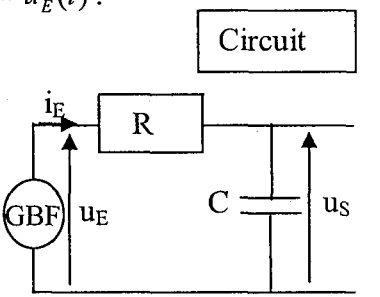
- Un filtre est d'autant sélectif que sa bande passante est étroite.

II. Exemples de filtres

1) Filtre passe bas passif.

Equation différentielle : $u_S(t) + RC\frac{du_S(t)}{dt} = u_E(t)$.





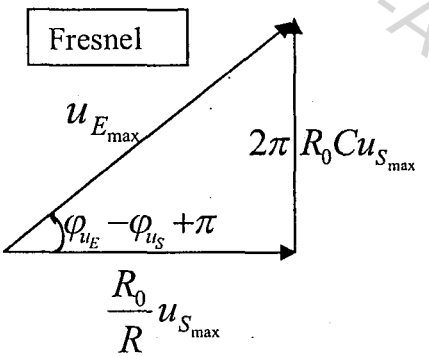
$T = \frac{1}{\sqrt{1+(2\pi RCN)^2}}$; G = - 10 log [1 + $(2\pi RCN)^2$] avec $T_0 = 1$ et $G_0 = 0$

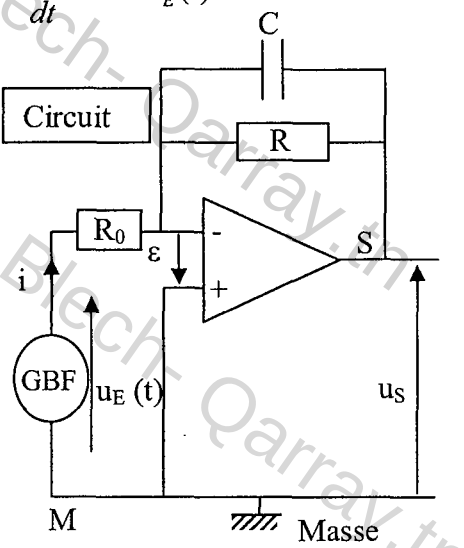
$N_b = 0$ Hz et $N_h = \frac{1}{2\pi RC} \Rightarrow$ bande passante : $[0 ; \frac{1}{2\pi RC}]$

$-\frac{\pi}{2} \langle \varphi_{u_S} - \varphi_{u_E} \langle 0$; pour $N = N_h$ on aura $\varphi_{u_S} - \varphi_{u_E} = -\frac{\pi}{4} rad$

2) Filtre passe bas actif.

Equation différentielle : $\frac{R_0}{R}u_S(t) + R_0C\frac{du_S(t)}{dt} = -u_E(t)$.





Qarray.tn -Aqra Blech- Qarray.tn
Qarray.tn -Aqra Blech- Qarray.tn